

CLAIMS

I claim:

1. In a building structure, the building structure having upright walls and a roof
5 structure, the roof structure having a coating layer, an insulation layer positioned below the coating layer and a deck layer positioned below the insulation layer wherein the deck layer includes at least one corrugated channel formed by downwardly projecting beveled channel sides connected by a channel top and terminated by a channel bottom wherein at least one conduit is disposed within the corrugated channel, the improvement,
10 comprising;

a box, the box being sized and shaped within the downwardly projecting beveled channel sides, the box having a top, a front, a back and opposed sidewalls wherein

- the top includes bevel portions, the bevel portions extending downwardly from the top toward the sidewalls, the bevel portions being shaped to nest within the
15 downwardly projecting channel sides provided by the corrugated channel while the sidewalls vertically extend downward from the bevel portions to be perpendicular to the top; and

- a pair of flanges, the flanges being positioned on the sidewalls below the bevel portions to extend outwardly from the bevel portions and the sidewalls, the flanges being
20 sized and shaped to be positioned co-planar in abutment with the channel bottom while positioning the box within the corrugated channel wherein the at least one conduit is disposed through the corrugated channel and the box such that the at least one conduit is free of offsets between the corrugated channel and the box.

2. The conduit device according to claim 1, wherein the bevel portions bevel at an angle less than or equal to 90°.
3. The conduit device according to claim 2, wherein the angle is 45°.
4. The conduit device according to claim 1, wherein the flanges provide the only
5 points of engagement between the deck layer and the box and with the box being otherwise in gap or spaced relation to the deck layer when in assembled relation.
5. The conduit device according to claim 1, further comprising fasteners which detachably fasten the flanges to the channel bottom.
6. The conduit device according to claim 5, wherein the fasteners terminate within a
10 horizontal plane defined by the channel bottom and the channel top.
7. A device for aligning conduit positioned within a corrugated deck layer which is positioned under a roof structure, comprising:

a box, the box having a top, a front, a back and opposing sidewalls, the top includes bevel portions downwardly extending from the top to the sidewalls while the
15 sidewalls vertically extend from the bevel portions to be positioned perpendicular with the top, the bevel portions being sized and shaped to nest within the corrugated deck layer; and

a pair of flanges, the flanges being disposed in a common plane relative to one another and at right angles to the sidewalls below the bevel portions to extend outwardly
20 from the bevel portions and the sidewalls, the flanges being sized and shaped to fasten the box to the corrugated deck layer.
8. The conduit device according to claim 7, wherein the sidewalls are longer than the bevel portions.

9. The conduit device according to claim 7, wherein the flanges are disposed in a common plane relative to one another and at right angles to the sidewalls.
10. The conduit device according to claim 7, wherein the flanges are detachable from
5 the sidewalls.
11. The conduit device according to claim 7, wherein the corrugated deck layer comprises a corrugated channel having a channel top and a channel bottom wherein the bevel portions nest within the corrugated channel
12. The conduit device according to claim 11, wherein the flanges are fastened co-
10 planar in abutment with the channel bottom.
13. The conduit device according to claim 11, further comprising fasteners which fasten the flanges to the corrugated deck layer wherein the fasteners terminate within a horizontal plane defined by the channel top and the channel bottom.
14. The conduit device according to claim 11, further comprising a plurality of
15 concentric knock outs positioned on the front and back and within the corrugated channel.
15. A method of installing conduit free of offsets within a corrugated deck layer which is positioned below a roof structure, comprising:
- inserting bevel portions of a box within the corrugated deck layer;
- 20 fastening a pair of flanges positioned near sidewalls of the box to a bottom of the corrugated deck layer with at least one fastener; and
- disposing the conduit positioned with the corrugated deck layer in a straight form free of offsets into the box.

16. The method of installing conduit according to claim 15, further comprising attaching the pair of flanges to the sidewalls.
17. The method of installing conduit according to claim 15, further comprising de-attaching the pair of flanges from the sidewalls.
- 5 18. The method of installing conduit according to claim 15, further comprising terminating the at least one fastener within a horizontal plane below the roof structure.
19. The method of installing conduit according to claim 15, wherein the flanges are fastened co-planar in abutment with the bottom.
20. The method of installing conduit according to claim 15, wherein the flanges
10 extend perpendicularly outward from the sidewalls.
21. A method of manufacturing a conduit device, comprising;
- forming a box from a flat piece of material by stamping a top, a front, a back, sidewalls and a plurality of knock outs from the flat piece wherein the top has a pair of beveled portions and the top is stamped connected to the front;
- 15 forming a flange on the first sidewall and forming another flange on the second sidewall wherein flanges are formed in a common plane relative to one another;
- folding the back 90° toward the first sidewall;
- folding the first sidewall 90° toward the front;
- folding the second sidewall 90° toward the front;
- 20 folding the top toward the front; and
- welding at most four welds to form the box wherein at least one of the plurality of knockouts is positioned on the front and back.

22. The method of manufacturing the conduit device according to claim 21, further comprising folding the bevel portions to extend downwardly from the top toward the sidewalls at an angle less than or equal to 90°.
23. The method of manufacturing the conduit device according to claim 21, further comprising folding the flanges downward from the sidewalls at right angles to extend outwardly from the sidewalls.
24. The method of manufacturing the conduit device according to claim 21, further comprising positioning the at least one knockout on the front and back above the sidewalls.
25. The method of manufacturing the conduit device according to claim 21, wherein the welding comprises welding the bevel portions to the sidewalls, welding the top to the front and welding the second sidewall to the back.